Claims

1. A method of inhibiting the activity of a G1 cdk, the method including contacting said cdk with a substance that includes a peptide of 40 amino acids or less, the peptide including the motif:
KxxRRyFzP (wherein x may be any amino acid, y and z may be hydrophobic, and each of the underlined residues may be absent or different).

2. A method according to claim 1 wherein y or / and z is, or are independently, any one of: alanine, valine, leucine, isoleucine, proline, phenylalanine, tryptophan, methionine.

3. A method according to claim 1, wherein said peptide is a fragment of p21 or an active portion or derivative thereof.

4. A method according to claim 1, wherein said peptide consists of residues 16-35 of the $p21^{WAF1}$ amino acid sequence or an active portion or derivative thereof.

5. A method according to claim 3 or claim 4, wherein said peptide is a said active portion or a said derivative and said active portion or said derivative has at least 80% identity with p21 over a window of at least 5 amino acids.

6. A method according to claim 1 wherein said peptide is coupled to a carrier molecule.

7. A method according to claim 6, wherein the carrier molecule has the sequence RQIKIWFQNRRMKWKK.

8. A method according to claim 1 wherein the peptide binds to a G1 cyclin or a G1 cdk.

9. An assay method for a compound with ability to modulate interaction or binding between a peptide as defined in claim 1 and a G1 cyclin and / or a G1 cdk, the method including:

(a) bringing into contact said peptide, a substance including a said cyclin or an active portion or derivative thereof, and / or a substance including a said cdk or an active portion or derivative thereof, and a test compound, under conditions wherein, in the absence of the test compound being an inhibitor of interaction or binding of said peptide and one or more of said substances, said peptide and one or more of said substances interact or bind; and

(b) determining interaction or binding between said peptide and one or more of said substances.

10. A method according to claim 9, wherein a compound is additionally tested for ability to modulate a p21-mediated effect on activity of a G1 cdk.

11. A method according to claim 1 or claim 10 wherein the cdk activity includes Rb phosphorylation.

12. A method according to claim 1 or claim 10 wherein induction of cell cycle arrest is tested.